

-22-

**METHODS OF ANODIZING VALVE METAL ANODES****ABSTRACT OF THE DISCLOSURE**

Methods for anodizing sintered valve metal anodes for use in wet electrolytic capacitors implemented in implantable medical devices (IMDs). The methods generally include immersing a pressed valve metal anode in an anodizing electrolyte and developing an anode-electrolyte system. Subsequently, subjecting the anode-electrolyte system to a potential that is ramped up to a target voltage in a pulsed fashion and delivering voltage potential pulses to the anode. The pulses are preferably decreased in pulse width as the potential increases. The pulse width of the applied pulses is preferably defined by means of a duty, such that the applied pulse duty cycle is substantially 100% initially and declines over the formation time as the formation voltage increases to the target potential to substantially 1.0% or less. The pulses are preferably applied for a hold time following achievement of the target formation potential, as the pulse current declines toward zero current flow.